11/07/2018 505180084

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
CHIEN-HUA CHEN	01/27/2014
MICHAEL CUMBIE	01/27/2014

RECEIVING PARTY DATA

Name:	Hewlett-Packard Development Company, L.P.	
Street Address:	11445 Compaq Center Drive West	
City:	Houston	
State/Country:	TEXAS	
Postal Code:	77070	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15885458

CORRESPONDENCE DATA

Fax Number: (970)778-4063

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

(541)715-8443 Phone: Email: ipa.mail@hp.com

Correspondent Name: HP INC.

Address Line 1: 3390 E. HARMONY ROAD MS 35 Address Line 2: INTELLECTUAL PROPERTY

Address Line 4: FORT COLLINS, COLORADO 80528

ATTORNEY DOCKET NUMBER:	84902023
NAME OF SUBMITTER:	KUBAE KIM
SIGNATURE:	/Kubae Kim/
DATE SIGNED:	11/07/2018

Total Attachments: 1

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PATENT REEL: 047937 FRAME: 0027 505180084

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receipt of which DEVELOPMEN Texas, (hereina	the undersigned (each this hereby acknowl T COMPANY, L.P., a fter HPDC), and to its	edged, and in furtherance of Texas Limited Partnership hav subsidiaries and affiliates, to as	a, that for good and valuable consideration, the my/our obligations to HEWLETT-PACKARD ing its principal place of business in Houston, asign and transfer to HPDC, its successors and rity, in, to and under an application for Patent
PRINTBARS A	ND METHODS OF FO	RMING PRINTBARS	
Filing Date:	01-31-2018	Applicat	ion No.: 15/885,458
divisionals, and	in(s) and improvement(renewals of and subs	s) set forth therein, and any and titutes for said application for sa	f all continuations, continuations-in-part (C-I-P's) aid Patent, and any and all other Patent of any eissues, or reexaminations, or extensions of said
by HPDC, its su Patent respective	iccessors, assigns, non rely may be granted, re	ninees or legal representatives, ti	for Patent in any country, to be held and enjoyed to the full end of the term or terms for which said entirely as the same would have been held and
executed and w time a request is perfect the little if nominees or leg said invention(s papers, to exec rightful oaths ar and legal repres improvement(s) cooperation and AND l/we if applications as invention(s) or accordance with	ill not execute any agre is made, and without und to said invention(s) or in all representatives, and to rimprovement(s), said the all disclaimers and gentatives to obtain and in any and all countrassistance are paid by tereby authorize and reaforesaid, to issue to Himprovement(s) which the terms of this assigntauthorize and direct	ement in conflict herewith, and IA due delay, execute and deliver all inprovement(s), said application a law agree to communicate to Hi id application and said Patent, to I divisionals, continuations, C-I-P nerally to do everything possible enforce, for its or their own benefies provided the expenses whith HPDC; inquest the official of any country IPDC, as assignee of the entire in may be issued and granted or iment.	re interest herein assigned, and that I/we have no we further covenant and agree that I/we will, each such papers as may be necessary or desirable to not said Patent, to HPDC, its successors, assigns PDC, or to its nominee, all known facts respecting teatify in any legal proceedings, to sign all lawfu 's, reissue and foreign applications, to make all to aid HPDC, its successors, assigns, nomineed it, proper patent protection for said invention(s) or ch may be incurred by me/us in lending such or countries whose duty it is to issue patents or ight, title and interest, any and all Patent for said or as a result of the application aforesaid, in the filling date and application number of said bove, as soon as the same shall have been made
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Inventor's Signatu	2.5		Date
Chien-Hua Chen			
Inventor's Typed	Name		•
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Michael W. Cumb			
Inventor's Typed			
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